

REMARKS

In the March 20, 2007 Office Action, the specification (the title of the invention) was objected to and claims 1-19 stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the March 20, 2007 Office Action, Applicants have amended the title of the invention and claims 1 and 17 as indicated above. Also, claims 4 and 16 have been amended to correct minor typographical errors in these claims. Thus, claims 1-19 are pending, with claims 1 and 17 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Specification

In the numbered paragraph 1 of the Office Action, the title of the invention was objected to as being non-descriptive. In response, Applicants have amended the title of the invention as indicated above. Applicants believe the title of the invention is now clearly indicative of the invention to which the claims are directed. Thus, withdrawal of the objection is respectfully requested.

Rejections - 35 U.S.C. § 103

In the numbered paragraphs 2 and 3 of the Office Action, claims 1-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,889,235 to Kawanishi et al. (hereinafter "Kawanishi et al. patent") in view of U.S. Patent No. 4,344,493 to Salmonsens et al. (hereinafter "Salmonsens et al. patent"). In response, Applicants have amended independent claims 1 and 17 as mentioned above.

More specifically, independent claims 1 and 17 now clearly recite that weighing of the container, accumulating of the containers, and discharging of the target object from the container are performed *without stopping movement of the container*. In other words, each step of weighing, stocking, and discharging of the target object in each container is performed while the container is *constantly moving*. Therefore, in the present invention, the amount of time required from the weighing to the discharging of the target object can be significantly reduced, thereby making high speed operations possible. This arrangement is *not* disclosed or suggested by the Kawanishi et al. patent, the Salmonsens et al. patent or any other prior art of record.

In the combination weighing method and combination balance disclosed in the Kawanishi et al. patent, movement of the cups 20 is *stopped* at least when the cups 20 are placed on the retention conveyor (e.g., the retention conveyor 63 in Figure 1 or the retention conveyor G16 in Figure 24). Referring to the embodiment illustrated in Figure 1, the Kawanishi et al. patent states as follows:

As shown in FIG. 1, the retention conveyor 63 is a straight conveyor which has its proximal end portion disposed sideward of the four weighers 62, and can receive and transport cups 20 discharged from the weighers 62 in the leftward direction in the sheet of the drawing. A *stop 73* is disposed at the distal left end, which can *stops* cups 20. (emphasis added) (column 12, line 64 to column 13, line 2)

Specifically, the retention conveyor 63 is driven by the motor all the time, and cups 20 on the retention conveyor 63 are moved in the direction of the stop 73. With the foremost cup 20 abutting against the stop 73, the cups 20 after it successively push the preceeding ones in a line, and, therefore, *they do not move there*. (emphasis added) (column 13, lines 57-62)

Moreover, referring to the embodiment illustrated in Figure 24, the Kawanishi et al. patent states as follows:

Then, as cups 20 containing weighed articles are successively forwarded from the weighing conveyor G15, and move under the second through fourteenth stops G22-2 through G22-14. Then, as shown in FIG. 28, the foremost cup 20 comes into contact with the first stop G22-1 and ***stops there***. The first cup detector G25-1 associated with the first stop G22-1 detects a cup 20 and the detection signal is applied to the computation control section. Upon receiving the detection signal, the computation control section drives the air cylinder G23-2 to stretch so that the second stop G22-3 moves from its upper position to the lower position (cup catching position), as shown in FIG. 28. A second cup 20 forwarded comes into contact with the second stop G22-2 and ***stops there***. (emphasis added) (column 28, lines 26-40)

The combination weighing method and combination balance in the Kawanishi et al. patent is arranged to ***always retain a prescribed number of the cups 20*** on the retention conveyor before the combination weight computation is performed so that a plurality of the cups 20 containing the articles can be selected among the plurality of cups 20 retained on the retention conveyor to obtain the prescribed combined weight of the articles (column 14, line 46 to column 15, line 5). In other words, in the arrangement of the combination balance disclosed in the Kawanishi et al. patent, it is ***necessary to stop*** movement of the cups 20 so that the prescribed number of the cups 20 is always retained on the retention conveyor.

Accordingly, the Kawanishi et al. patent ***fails*** to disclose or suggest at least ***accumulating*** a plurality of containers ***without stopping movements of the containers*** transported thereto from the weighing unit as now recited in claims 1 and 17.

The secondary reference, namely the Salmonsens et al. patent, merely discloses a high-speed weighing and conveying apparatus in which open topped cans are filled with soup and

weighted as they pass over a weight platform to a can closer. The Salmonsens et al. patent is *silent* about accumulating (storing) the cans after the cans are weighted. Therefore, the Salmonsens et al. patent *fails* to provide for the deficiencies of the Kawanishi et al. patent because this reference also fails to disclose or suggest at least *accumulating* a plurality of containers *without stopping movements of the containers* transported thereto from the weighing unit as now recited in claims 1 and 17.

It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art provides an *apparent reason* for the desirability of the modification. Accordingly, the prior art of record lacks any apparent reason, suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement of the weighing device or method.

More specifically, as mentioned above, in the Kawanishi et al. patent, it is *necessary to stop* movement of the cups 20 so that the prescribed number of the cups 20 is always retained on the retention conveyer before the combination computation is performed. Therefore, if the retention conveyer of the Kawanishi et al. patent were somehow modified to meet the claims of the present invention, it would require a *complete reconstruction* of the retention conveyer of the Kawanishi et al. patent, which would destroy the teaching of the Kawanishi et al. patent.

Accordingly, Applicants believe independent claims 1 and 17, now amended, are *not* rendered obvious over the Kawanishi et al. patent and the Salmonsens et al. patent, whether taken singularly or in combination.

Moreover, Applicants believe that dependent claims 2-16, 18 and 19 are also allowable over the prior art of record in that they depend from independent claim 1, and therefore are allowable for the reasons stated above. Thus, Applicants believe that since the

prior art of record does not disclose or suggest the invention as set forth in independent claim 1, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

Also, dependent claims 2-16, 18 and 19 are further allowable because they include additional limitations. For example, claim 4 requires that the *weighing unit moves together* with the container, and claim 5 requires the weighing unit is in a *stationary state relative to the container* when weighing the container. Claim 9 requires at least one of the weighing unit, the stock unit and the discharge unit is configured to move the container *three-dimensionally*. Claim 11 requires the moving mechanism is configured to *rotate* the weighing unit, the stock unit, and the discharge unit. Claim 15 requires that the container is *in constant movement* after being supplied with the target object in the supply unit until the target object is discharged therefrom in the discharge unit and returned to the weighing unit. Claim 18 requires the stock unit is configured to *circulate* the plurality of containers. Applicants believe at least these specific limitations recited in dependent claims are *not* disclosed or suggested by the prior art of record.

Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicants believe that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 1-19 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

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Respectfully submitted,



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